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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	OCT 23	The Derwent World Patents Index suite of databases on STN has been enhanced and reloaded
NEWS 4	OCT 30	CHEMLIST enhanced with new search and display field
NEWS 5	NOV 03	JAPIO enhanced with IPC 8 features and functionality
NEWS 6	NOV 10	CA/CAplus F-Term thesaurus enhanced
NEWS 7	NOV 10	STN Express with Discover! free maintenance release Version 8.01c now available
NEWS 8	NOV 20	CA/CAplus to MARPAT accession number crossover limit increased to 50,000
NEWS 9	DEC 01	CAS REGISTRY updated with new ambiguity codes
NEWS 10	DEC 11	CAS REGISTRY chemical nomenclature enhanced
NEWS 11	DEC 14	WPIDS/WPINDEX/WPIX manual codes updated
NEWS 12	DEC 14	GBFULL and FRFULL enhanced with IPC 8 features and functionality
NEWS 13	DEC 18	CA/CAplus pre-1967 chemical substance index entries enhanced with preparation role
NEWS 14	DEC 18	CA/CAplus patent kind codes updated
NEWS 15	DEC 18	MARPAT to CA/CAplus accession number crossover limit increased to 50,000
NEWS 16	DEC 18	MEDLINE updated in preparation for 2007 reload
NEWS 17	DEC 27	CA/CAplus enhanced with more pre-1907 records
NEWS 18	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 19	JAN 16	CA/CAplus Company Name Thesaurus enhanced and reloaded
NEWS 20	JAN 16	IPC version 2007.01 thesaurus available on STN
NEWS 21	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 22	JAN 22	CA/CAplus updated with revised CAS roles
NEWS 23	JAN 22	CA/CAplus enhanced with patent applications from India
NEWS 24	JAN 29	PHAR reloaded with new search and display fields
NEWS 25	JAN 29	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS 26	FEB 13	CASREACT coverage to be extended
NEWS 27	Feb 15	PATDPASPC enhanced with Drug Approval numbers
NEWS 28	Feb 15	RUSSIAPAT enhanced with pre-1994 records
NEWS 29	Feb 23	KOREAPAT enhanced with IPC 8 features and functionality
NEWS 30	Feb 26	MEDLINE reloaded with enhancements
NEWS 31	Feb 26	EMBASE enhanced with Clinical Trial Number field
NEWS 32	Feb 26	TOXCENTER enhanced with reloaded MEDLINE
NEWS 33	Feb 26	IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS 34	Feb 26	CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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 NEWS X25       X.25 communication option no longer available

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=> file caplus
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                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

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FILE COVERS 1907 - 8 Mar 2007  VOL 146 ISS 11
FILE LAST UPDATED: 7 Mar 2007  (20070307/ED)

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=> s formoterol
           944 FORMOTEROL
             1 FORMOTEROLS
L1         944 FORMOTEROL
                 (FORMOTEROL OR FORMOTEROLS)

=> s 73573-87-2
   REG1stRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.



L3         711 L2
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```
=> s L1 or L3
L4          955 L1 OR L3

=> s steroid
         112480 STEROID
         113670 STEROIDS
L5       171188 STEROID
                (STEROID OR STEROIDS)

=> s L4 and L5
L6           90 L4 AND L5

=> dup rem L6
PROCESSING COMPLETED FOR L6
L7           90 DUP REM L6 (0 DUPLICATES REMOVED)

=> s L7 and (AY<2002 or PRY<2002 or PY<2002)
L8           90 S L7
        4166098 AY<2002
        3643132 PRY<2002
       21881976 PY<2002
L9           38 L8 AND (AY<2002 OR PRY<2002 OR PY<2002)

=> s fluticasone
L10        1529 FLUTICASONE

=> s L9 and L10
L11          11 L9 AND L10

=> d 1-38 ibib abs L9

L9   ANSWER 1 OF 38  CAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2006:666025  CAPLUS
DOCUMENT NUMBER:          145:152690
TITLE:                    Method for inducing crystalline state transition in
                          pharmaceuticals
INVENTOR(S):              Nakamichi, Kouichi; Izumi, Shougo; Oka, Masaaki
PATENT ASSIGNEE(S):       Nippon Shinyaju Company, Ltd., Japan
SOURCE:                   U.S., 18 pp., Cont.-in-part of U. S. 5,456,923.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     US 5811547            A     19980922    US 1995-416815          19950609 <--
     CA 2147279            A1    19940428    CA 1993-2147279         19931013 <--
     WO 9408561            A1    19940428    WO 1993-JP1469          19931013 <--
         W:  AU, BR, CA, FI, HU, JP, KR, NO, NZ, RU, US
         RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
     AU 9351607            A     19940509    AU 1993-51607           19931013 <--
     EP 665009             A1    19950802    EP 1993-922625          19931013 <--
     EP 665009             B1    20000216
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
     AT 189770             T     20000315    AT 1993-922625          19931013 <--
     ES 2145063            T3    20000701    ES 1993-922625          19931013 <--
     US 5456923            A     19951010    US 1993-129133          19931115 <--
PRIORITY APPLN. INFO.:                       JP 1992-303085      A   19921014 <--
                                             WO 1993-JP1469      W   19931013 <--
                                             US 1993-129133      A2  19931115 <--
```

	JP 1991-112554	A	19910416 <--
	WO 1992-JP470	W	19920414 <--

AB This invention has for its object to provide a method of inducing a transition in crystalline state of a crystallizable pharmaceutical with great ease and improved efficiency and uniformity on a high production scale. An extruder is used for inducing a transition from one crystalline state (Δ) to another crystalline state in a crystallizable pharmaceutical. An extruded indomethacin (form α) was converted to an amorphous form.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:355834 CAPLUS
DOCUMENT NUMBER: 138:362665
TITLE: Immunostimulatory nucleic acids for the treatment of asthma and allergy
INVENTOR(S): Bratzler, Robert L.; Petersen, Deanna M.; Fouron, Yves
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 221 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2003087848	A1	20030508	US 2001-776479		20010202 <--
US 2004067902	A9	20040408			
US 2004235774	A1	20041125	US 2004-831778		20040423 <--
US 2006154890	A1	20060713	US 2005-301360		20051209 <--
US 2007037767	A1	20070215	US 2006-526896		20060922 <--
PRIORITY APPLN. INFO.:			US 2000-179991P	P	20000203 <--
			US 2001-776479	A1	20010202 <--
			US 2004-831778	A1	20040423
			US 2005-301360	A1	20051209

OTHER SOURCE(S): MARPAT 138:362665

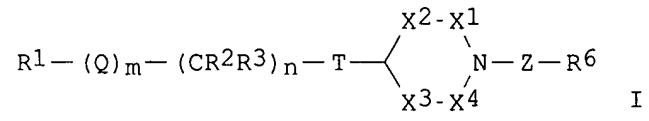
AB The invention involves administration of an immunostimulatory nucleic acid alone or in combination with an asthma/allergy medicament for the treatment or prevention of asthma and allergy in subjects. The combination of drugs are administered in synergistic amts. or in various dosages or at various time schedules. The invention also relates to kits and compns. concerning the combination of drugs.

L9 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:44146 CAPLUS
DOCUMENT NUMBER: 138:73178
TITLE: Preparation and pharmaceutical combinations of [(hetero)arylalkyl]piperidinyl amine, amide, or carbamate CCR3 antagonists for treatment of asthma, allergic disease, or inflammation
INVENTOR(S): Bahl, Ash; Perry, Matthew; Springthorpe, Brian
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: Brit. UK Pat. Appl., 91 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2373186	A	20020918	GB 2001-4534	20010223 <--
PRIORITY APPLN. INFO.:			GB 2001-4534	20010223 <--

OTHER SOURCE(S): MARPAT 138:73178
GI



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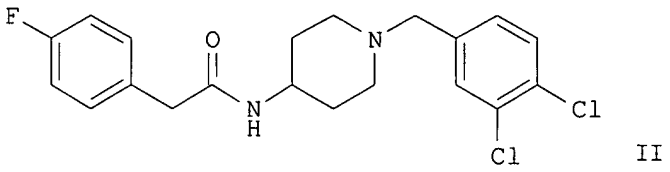

II

AB Title compds. I [wherein Z = CR4R5, CO, or CR4R5Z1; Z1 = alkylene, alkenylene, or CONH; R1 = (un)substituted alkyl, alkenyl, (hetero)cycloalkyl, or (hetero)aryl; Q = O, S, NR9, CO, CONR9, NR9CO, or CH=CH; m = 0-1; n = 0-6 with the proviso that when n = 0; then m = 0; R2 and R3 = independently H or alkyl; or CR2R3 = (alkyl)cycloalkyl; T = NR10, CONR10, NR11CONR10, or CONR10R11; X1-X4 = independently CH2CHR12 or CO; R4 and R5 = independently H or alkyl; R6 = (un)substituted (hetero)aryl; R9-R11 = independently H, alkyl, haloalkyl, hydroxyalkyl, cycloalkyl(alkyl), or phenylalkyl; R12 = independently (cyclo)alkyl or CO; or R12 groups of X1 and X3 or X4, or X2 and X3 or X4 join to form CH2CH2, CH2CH2CH2, CH2OCH2, or CH2SCH2; or pharmaceutically acceptable salts or solvates thereof] were prepared as cysteine-cysteine chemokine receptor 3 (CCR3) antagonists for use in pharmaceutical combinations with a histamine antagonist, steroid, leukotriene modulator, human cytokine, β-agonist, phosphodiesterase inhibitor, or antibody (no data). For example, 1-(3,4-dichlorobenzyl)-4-piperidinamine•2CF3CO2H was condensed with 2-(4-fluorophenyl)acetic acid to give N-[1-(3,4-dichlorobenzyl)-4-piperidinyl]-2-(4-fluorophenyl)acetamide (II). I are useful in combination therapy for the treatment of asthma, rhinitis, and other allergic or inflammatory conditions (no data).

L9 ANSWER 4 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:832576 CAPLUS
DOCUMENT NUMBER: 137:346197
TITLE: Treatment of respiratory and lung diseases with antisense oligonucleotides and a bronchodilating agent
INVENTOR(S): Nyce, Jonathan W.; Li, Yukui; Sandrasagra, Anthony; Katz, Evan; Pabalan, Jonathan; Aguilar, Douglas; Miller, Shoreh; Tang, Lei; Shahabuddin, Syed
PATENT ASSIGNEE(S): Epigenesis Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 764 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085309	A2	20021031	WO 2002-US13143	20020423 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,

UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004049022	A1	20040311	US 2003-627930		20030725
PRIORITY APPLN. INFO.:			US 2001-286036P	P	20010424 <--
			WO 2002-US13135	A2	20020423
			WO 2002-US13143	A2	20020423

OTHER SOURCE(S): MARPAT 137:346197

AB This patent relates to a composition comprising a carrier, oligonucleotides (oligos) that are antisense to adenosine receptors, and contain low amts. of or no adenosine (A), plus bronchodilating agents. All antisense oligonucleotides designed in accordance with the invention were highly effective at countering or reducing effects mediated by the receptors to which they are targeted. Two antisense phosphorothioated oligos targeting human adenosine A1 receptor mRNA, one targeting adenosine A2b receptor, and two targeting an A3 receptor are capable of countering the effect of exogenously administered adenosine which is mediated by the specific receptor they are targeted to. The activity of the antisense oligos are specific to the target and substitutively fail to inhibit another target. An oligonucleotide wherein the phosphodiester bonds are substituted with phosphorothioate bonds evidenced an unexpected superiority over the phosphodiester antisense oligo. In addition, they result in extremely low or non-existent deleterious side effects or toxicity. This represents 100% success in providing agents that are highly effective and specific in the treatment of bronchoconstriction and/or inflammation. These agents and the composition and formulations provided are suitable for the treatment of respiratory tract, pulmonary and malignant diseases associated with bronchoconstriction, respiratory tract inflammation and allergies, impaired airways, including lung disease and diseases whose secondary effects afflict the lungs of a subject, such as allergies, asthma, impeded respiration, allergic rhinitis, pain, cystic fibrosis, pulmonary fibrosis, RDA, COPD, and cancers, among others. The present agents and composition may be administered preventatively, prophylactically or therapeutically in conjunction with other therapies, or may be utilized as a substitute for therapies that have significant, neg. side effects. The method of the present invention is also practiced with antisense oligonucleotides targeted to many genes, mRNAs and their corresponding proteins in essential the same manner.

L9 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2002:832564 CAPLUS
DOCUMENT NUMBER:	137:329451
TITLE:	Pharmaceutical formulations and kit for treatment of respiratory and lung disease with non-glucocorticoid steroids and/or ubiquinone and a bronchodilating agent
INVENTOR(S):	Nyce, Jonathan W.
PATENT ASSIGNEE(S):	Epigenesis Pharmaceuticals, Inc., USA
SOURCE:	PCT Int. Appl., 49 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085296	A2	20021031	WO 2002-US12552	20020422 <--
WO 2002085296	A3	20030403		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003216329	A1	20031120	US 2003-461563		20030612 <--
US 2005070487	A1	20050331	US 2004-475689		20040812 <--
PRIORITY APPLN. INFO.:			US 2001-286139P	P	20010424 <--
			WO 2002-US12552	A1	20020422
			US 2002-388170P	P	20020612

OTHER SOURCE(S): MARPAT 137:329451

AB A pharmaceutical or veterinary composition, comprises a first active agent selected from a non-glucocorticoid steroid or analogs, a ubiquinone, or salts thereof, and a second active agent comprising a bronchodilator. The composition is provided in various formulations and in the form of a kit. The products of this patent are applied to the prophylaxis and treatment of respiratory, lung and malignant diseases.

L9 ANSWER 6 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:813911 CAPLUS
DOCUMENT NUMBER: 137:316082
TITLE: Formoterol/steroid bronchodilating compositions and methods of use thereof
INVENTOR(S): Banerjee, Partha S.; Chaudry, Imitiaz A.
PATENT ASSIGNEE(S): Dey LP, USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002083113	A2	20021024	WO 2002-US6252		20020301 <--
WO 2002083113	A3	20030320			

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
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BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003055026	A1	20030320	US 2001-887496		20010622 <--
CA 2444535	A1	20021024	CA 2002-2444535		20020301 <--
EP 1385494	A2	20040204	EP 2002-719098		20020301 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2005512944	T	20050512	JP 2002-580917		20020301 <--
US 2002183293	A1	20021205	US 2002-145978		20020513 <--
PRIORITY APPLN. INFO.:			US 2001-284607P	P	20010417 <--
			US 2001-887496	A1	20010622 <--
			WO 2002-US6252	W	20020301

AB Bronchodilating compns. intended for administration as a nebulized aerosol are provided. In certain embodiments, the compns. contain formoterol, or a derivative thereof, and a steroidal anti-inflammatory agent. Methods for treatment, prevention, or amelioration of one or more symptoms of bronchoconstrictive disorders using the compns. provided herein are also provided. For example, a solution was prepared containing Formoterol fumarate dihydrate 85 μg/mL, budesonide 125

μg/mL, vitamin E TPGS 10 μg/mL, Polyethylene glycol 10 μg/mL, citrate buffer 50mM, sodium chloride 7.5 mg/mL, and water as needed.

L9 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:730354 CAPLUS
DOCUMENT NUMBER: 137:252996
TITLE: Ipratropium formulation for pulmonary inhalation
INVENTOR(S): Wulffhart, Harold; Ayoub, Khaldoun; Logiudice, Rosemary; Piskorz, Hanna
PATENT ASSIGNEE(S): Pharmascience, Can.
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6455028	B1	20020924	US 2001-841181	20010423 <--
CA 2441549	A1	20021031	CA 2002-2441549	20020403 <--
WO 2002085338	A2	20021031	WO 2002-CA450	20020403 <--
WO 2002085338	A3	20030403		
WO 2002085338	B1	20030703		
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1381353	A2	20040121	EP 2002-713970	20020403 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRIORITY APPLN. INFO.: US 2001-841181 A 20010423 <--
WO 2002-CA450 W 20020403

AB Pharmaceutical aerosol formulations are provided comprising substantially nonacicular particles of a bronchodilator selected from the group consisting of ipratropium and pharmacol. acceptable salts, solvates, hydrates, esters and isomers thereof. The described formulations include a propellant selected from the group consisting of a fluorocarbon propellant, a hydrogen-containing fluorocarbon propellant, and mixts. thereof. The formulations are substantially free of both surfactant and solvent. Methods of use and drug delivery devices are also provided. For example, an ipratropium bromide inhaler was prepared using approx. 5.5 mg of ipratropium bromide nonacicular particles and 8.3 g of 1,1,1,2-tetrafluoroethane (HFC-134a). Upon repeated actuation, the inhaler delivered about 20 μg of the active agent per dose without clogging.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:555336 CAPLUS
DOCUMENT NUMBER: 137:114526
TITLE: A method for the preparation of nanoparticles
INVENTOR(S): Watanabe, Wiwik; Kauppinen, Esko; Ahonen, Petri; Brown, David; Muttonen, Esa
PATENT ASSIGNEE(S): Orion Corporation, Finland
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002056866 A1 20020725 WO 2002-FI42 20020118 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
EP 1351666 A1 20031015 EP 2002-710900 20020118 <--
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JP 2004520157 T 20040708 JP 2002-557374 20020118 <--
US 2004091542 A1 20040513 US 2003-466365 20031211 <--
PRIORITY APPLN. INFO.: FI 2001-115 A 20010118 <--
WO 2002-FI42 W 20020118

AB The invention relates to free nano-sized particles of active agents e.g. therapeutic, cosmetic or diagnostic agents, and to a method for the preparation of such particles. The method comprises providing a liquid feed stock comprising an active agent or combination of two or more active agents, atomizing the liquid feed stock, suspending the droplets in a carrier gas, and passing the carrier gas and droplets through a heated tube flow reactor under predetd. residence time and temperature history, and collecting the particles produced. Nano-sized crystalline spherical uncharged particles with narrow aerodynamic particle size distribution and rough surfaces, are obtained. The particles show improved dissoln. rate in-vitro and bioavailability in-vivo, dispersibility and stability. Nanosized beclomethasone dipropionate particles were prepared

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:449474 CAPLUS
DOCUMENT NUMBER: 137:11011
TITLE: Particulate inhalation carriers
INVENTOR(S): Buckton, Graham; Al-Hadithi, Dima; Brocchini, Stephen
PATENT ASSIGNEE(S): School of Pharmacy, University of London, UK
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002045682	A1	20020613	WO 2001-GB5436	20011210 <--
AU 2002022145	A5	20020618	AU 2002-22145	20011210 <--
EP 1339388	A1	20030903	EP 2001-999355	20011210 <--
JP 2004517834	T	20040617	JP 2002-547468	20011210 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2004062719 A1 20040401 US 2003-433435 20031020 <--
PRIORITY APPLN. INFO.: GB 2000-30074 A 20001208 <--
WO 2001-GB5436 W 20011210 <--

AB The present invention provides a particulate substrate suitable for carrying a drug for delivery, comprising a substantially crystalline core and a surface coating, wherein the particulate substrate has a proportion of amorphous character of 2% or greater by weight of particulate substrate, and a process for the production of carrier particles comprising the steps of: (a) mixing crystalline particles having an average diameter greater than 10 μm with at least partially amorphous particles having average diams. less than 10 μm; (b) exposing the mixture to conditions capable of inducing crystallization of the amorphous particles for a predetd. period in order that partial crystallization takes place. The core material is selected from saccharides, most preferably lactose and the surface of the substrate is formed from the same material as the core. The drug is selected from steroids, hormones, therapeutic proteins and peptides, β-2 agonists, bronchodilators, corticosteroids and antihistamines.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:51237 CAPLUS
DOCUMENT NUMBER: 136:123631
TITLE: Aerosol formulation containing a polar fluorinated compound
INVENTOR(S): Rogueda, Philippe
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002003958	A1	20020117	WO 2001-SE1606	20010710 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2415092	A1	20020117	CA 2001-2415092	20010710 <--
EP 1303258	A1	20030423	EP 2001-952071	20010710 <--
EP 1303258	B1	20061011		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001012322	A	20030708	BR 2001-12322	20010710 <--
JP 2004502719	T	20040129	JP 2002-508413	20010710 <--
NZ 523379	A	20040625	NZ 2001-523379	20010710 <--
AT 342048	T	20061115	AT 2001-952071	20010710 <--
ZA 2003000075	A	20040405	ZA 2003-75	20030103 <--
US 2003194378	A1	20031016	US 2003-332568	20030109 <--
NO 2003000133	A	20030224	NO 2003-133	20030110 <--

PRIORITY APPLN. INFO.: GB 2000-16876 A 20000711 <--
WO 2001-SE1606 W 20010710 <--

AB The present invention relates to a stable pharmaceutical aerosol formulation intended for inhalation. The formulation contains an active

substance, an aerosol propellant, a polar fluorinated mol. and an excipient. The preferred propellant is HFA 134a or HFA 227 or a mixture Thus, an aerosol formulation contained budesonide 0.125, methoxy-PEG-DSPE 0.320, 1H,1H,2H,2H-perfluorooctan-1-ol 31.7 and HFA-227 to 100%.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:867964 CAPLUS

DOCUMENT NUMBER: 135:376803

TITLE: Stable pharmaceutical solution formulations for pressurized metered dose inhalers

INVENTOR(S): Lewis, David; Ganderton, David; Meakin, Brian; Brambilla, Gaetano; Ferraris, Alessandra

PATENT ASSIGNEE(S): Chiesi Farmaceutici S.P.A., Italy

SOURCE: Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1157689	A1	20011128	EP 2001-112230	20010518 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CA 2411047	A1	20011129	CA 2000-2411047	20000522 <--
WO 2001089480	A1	20011129	WO 2000-EP4635	20000522 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000015884	A	20030708	BR 2000-15884	20000522 <--
HU 200302007	A2	20030929	HU 2003-2007	20000522 <--
JP 2003534266	T	20031118	JP 2001-585725	20000522 <--
EE 200200649	A	20040615	EE 2002-649	20000522 <--
EP 1466594	A2	20041013	EP 2004-11423	20010518 <--
EP 1466594	A3	20041201		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BG 107256	A	20030630	BG 2002-107256	20021108 <--
NO 2002005568	A	20021120	NO 2002-5568	20021120 <--
HK 1058900	A1	20060127	HK 2004-101816	20040312 <--
PRIORITY APPLN. INFO.:			WO 2000-EP4635 A	20000522 <--
			EP 2001-112230 A3	20010518 <--

AB An aerosol solution composition for use in an aerosol inhaler comprises an active material, a propellant containing a hydrofluoroalkane, a cosolvent and optionally a low volatility component to increase the mass median aerodynamic diameter (MMAD) of the aerosol particles on actuation of the inhaler. The active ingredient is a β2 agonist selected from salbutamol, formoterol, salmeterol, and TA-2005, salts thereof or their combination with steroid such as beclomethasone dipropionate, fluticasone propionate, budesonide, and its 22R-epimer or an anticholinergic atropine-like derivative such as ipratropium bromide, oxitropium bromide, and tiotropium bromide. The composition is stabilized by using a small amount of mineral acid and a suitable can having part or all of its internal metallic surfaces made of stainless steel, anodized aluminum or lined with an inert organic coating.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:833060 CAPLUS
DOCUMENT NUMBER: 135:376741
TITLE: Stable metal ion-lipid powdered pharmaceutical compositions
INVENTOR(S): Dellamary, Luis A.; Riess, Jean; Schutt, Ernest G.; Weers, Jeffry G.; Tarara, Thomas E.
PATENT ASSIGNEE(S): Alliance Pharmaceutical Corp., USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085137	A2	20011115	WO 2001-US14824	20010508 <--
WO 2001085137	A3	20020418		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6630169	B1	20031007	US 2000-720536	20001222 <--
CA 2408464	A1	20011115	CA 2001-2408464	20010508 <--
EP 1282405	A2	20030212	EP 2001-933194	20010508 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003533449	T	20031111	JP 2001-581791	20010508 <--
AU 2006200768	A1	20060316	AU 2006-200768	20060224 <--
AU 2006236049	A1	20061207	AU 2006-236049	20061115 <--

PRIORITY APPLN. INFO.:

US 2000-568818	A	20000510 <--
WO 1999-US6855	W	19990331 <--
AU 2001-61246	A3	20010508 <--
WO 2001-US14824	W	20010508 <--

AB Microparticle compns. comprising metal ion-lipid complexes for drug delivery are described including methods of making the microparticle compns. and methods of treating certain conditions and disease states by administering the microparticle compns. The metal ion-lipid complexes can be combined with various drugs or active agents for therapeutic administration. The microparticle compns. of the present invention have superior stability to other microparticle compns. resulting in a microparticle composition with longer shelf life and improved dispersibility. The microparticle compns. of the present invention have a transition temperature (Tm) of at least 20° above the recommended storage temperature (Tst) for drug delivery. An aqueous preparation was prepared by mixing two prepns., A and B, immediately prior to spray drying. The preparation A was comprised of a fluorocarbon-in-water emulsion in which 26 g perfluorooctyl bromide was dispersed in 33 g water with the aid of 1.30 g of SPC-3 emulsifier (hydrogenated soy phosphatidylcholine). The preparation B contained 0.162 g CaCl2.2H20 and 0.162 g budesonide dissolved/suspended in 4 g water. The resulting microparticle of the sample had a PL-budesonide-CaCl2.2H20 weight ratio of about 80:10:10. The mean volume aerodynamic particle size of the dry powder was approx. 4.1 μm.

L9 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:659249 CAPLUS
DOCUMENT NUMBER: 135:366235
TITLE: Is there a need for another inhalative β2-agonist besides formoterol in patients with asthma?
AUTHOR(S): Matthys, Heinrich
CORPORATE SOURCE: Medizinische Klinik, Abteilung Pneumologie Universitatsklinik Freiburg, Freiburg, Germany
SOURCE: Respiration (2001), 68(4), 432-437
CODEN: RESPBD; ISSN: 0025-7931
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with refs. Formoterol can substitute the rapid- and short-acting β2-agonists as well as the slow- and long-acting salmeterol. Therefore formoterol in a fixed combination with an inhalant steroid reduces the aerosol devices necessary for asthma control to only one, to be used for regular "controller" and, as needed, "rescue therapy". The side effect profile of formoterol is comparable to the short-acting β2-agonists which makes the combination with a topically active glucocorticoid applicable in patients of any asthma severity as long as they are able to perform an inspiratory vital capacity maneuver.
REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:548882 CAPLUS
DOCUMENT NUMBER: 136:63413
TITLE: Long-acting β-agonists and steroids - trial experience
AUTHOR(S): Lofdahl, C.-G.
CORPORATE SOURCE: Department of Respiratory Medicine, Lund University Hospital, Lund, SE-22185, Swed.
SOURCE: Clinical & Experimental Allergy Reviews (2001), 1(1), 18-22
CODEN: CEARC3; ISSN: 1472-9725
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review on the effect of a combination of a low-dose inhaled steroid and β2-agonists, salmeterol or formoterol, on clin. outcomes in asthma. This combined treatment system improves the lung function symptom control and the quality of life in patients with persistent asthma to a greater extent than increasing the dose of the inhaled steroid. However, increasing the maintenance dose of the inhaled steroid might be more appropriate and effective treatment strategy in preventing repeated severe exacerbations in asthma patients.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:475821 CAPLUS
DOCUMENT NUMBER: 135:267426
TITLE: Effect of oral prednisolone on the bronchoprotective effect of formoterol in patients with persistent asthma
AUTHOR(S): Grootendorst, D. C.; Sterk, P. J.; Heijerman, H. G. M.
CORPORATE SOURCE: Dept of Pulmonology, Leijenburg Hospital, The Hague, NL-2504 LN, Neth.
SOURCE: European Respiratory Journal (2001), 17(3), 374-379

CODEN: ERJOEI; ISSN: 0903-1936
PUBLISHER: European Respiratory Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Tolerance to the bronchoprotective effects by long-acting β2-agonists (LAB) in patients with asthma is not prevented by inhaled corticosteroids (ICS). This study examined whether oral prednisolone can restore the bronchoprotective effects of formoterol in 24 patients with persistent asthma already treated with ICS (at least 800 μg budesonide day-1 or equivalent) and LAB, using a parallel-group design. During a 2-wk run-in period and during the study, patients used formoterol 12 μg twice daily by Turbuhaler, instead of their own LAB. At baseline and at the end of 7-days treatment with oral placebo or prednisolone (30 mg·day-1), provocative concentration of histamine causing a 20% fall in forced expiratory volume in one second (PC20 histamine) was measured on two sep. days after randomized singledose inhalation of placebo (postP) or formoterol (postF). In addition, PC20postF was measured 24 h after starting oral treatment. The protective effect by formoterol at baseline and during treatment was calculated as the difference between the logs of PC20postP and PC20postF. The mean±SEM in doubling dose (DD) bronchoprotective effect at baseline was 0.8±0.4 DD in the placebo group and 1.0±0.4 DD in the prednisolone group. At the end of the treatment period, the protective effect changed to 1.0±0.5 DD and 0.8±0.6 DD in the placebo and prednisolone treated groups, resp. This change was not different between the groups ($p>0.4$). In conclusion, the bronchoprotective effect by formoterol is not influenced by 1 wk prednisolone treatment in patients with asthma who are using regular inhaled corticosteroids and long-acting β2-agonists. These findings indicate that tolerance to long-acting β2-agonists cannot be restored by oral steroid therapy.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:475820 CAPLUS
DOCUMENT NUMBER: 135:266981
TITLE: Reversing acute bronchoconstriction in asthma: The effect of bronchodilator tolerance after treatment with formoterol
AUTHOR(S): Jones, S. L.; Cowan, J. O.; Flannery, E. M.; Hancox, R. J.; Herbison, G. P.; Taylor, D. R.
CORPORATE SOURCE: Depts of Medical and Surgical Sciences, Dunedin School of Medicine, University of Otago, Dunedin, N. Z.
SOURCE: European Respiratory Journal (2001), 17(3), 368-373
CODEN: ERJOEI; ISSN: 0903-1936
PUBLISHER: European Respiratory Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Continuous treatment with a short-acting β2-agonist can lead to reduced bronchodilator responsiveness during acute bronchoconstriction. This study evaluated bronchodilator tolerance to salbutamol following regular treatment with a long-acting β2-agonist, formoterol . The modifying effect of i.v. corticosteroid was also studied. Ten asthmatic subjects (using inhaled steroids) participated in a randomized, double-blind, placebo-controlled, cross-over study. Formoterol 12 μg b.i.d. or matching placebo was given for 10-14 days with > 2 wk washout. Following each treatment, patients underwent a methacholine challenge to induce a fall in forced expired volume in one second (FEV1) of at least 20%, then salbutamol 100 μg, 100 μg, and 200 μg was inhaled via a spacer at 5 min intervals, with a further 400 μg at 45 min. Following each treatment, patients underwent a methacholine challenge to induce a fall in forced expired volume in one second (FEV1) of at least 20%, then salbutamol 100 μg, 100 μg, and

200 μg was inhaled via a spacer at 5 min intervals, with a further 400 μg at 45 min. After a third single-blind formoterol treatment period, hydrocortisone 200 mg was given i.v. prior to salbutamol. Dose-response curves for change in FEV1 with salbutamol were compared using anal. of covariance to take account of methacholine-induced changes in spirometry. Regular formoterol resulted in a significantly lower FEV1 after salbutamol at each time point compared to placebo ($p<0.01$). The area under the curves (AUCs) for 15 (AUC0-15) and 45 (AUC0-45) min were 28.8% and 29.5% lower following formoterol treatment ($p<0.001$). Pretreatment with hydrocortisone had no significant modifying effect within 2 h of administration. It is concluded that significant tolerance to the bronchodilator effects of inhaled salbutamol occurs 36 h after stopping the regular administration of formoterol. This bronchodilator tolerance is evident in circumstances of acute bronchoconstriction.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:360974 CAPLUS
DOCUMENT NUMBER: 135:235689
TITLE: Long-acting β2-agonists
AUTHOR(S): Johnson, Malcolm; Hagan, Gerry W. E.
CORPORATE SOURCE: GlaxoWellcome, Uxbridge, UK
SOURCE: Progress in Respiratory Research (2001), 31(New Drugs for Asthma, Allergy and COPD), 60-63
CODEN: PRRRAE; ISSN: 1422-2140
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 36 refs. The LABAs salmeterol and formoterol have both prolonged airway smooth muscle effects and non-bronchodilator activity. They have a complementary mode of action to the topical anti-inflammatory effects of corticosteroids, and inhibit mucosal edema, increase mucociliary transport and reduce respiratory tract infection. In asthma, LABAs are currently positioned as "add-on" therapy, where combination with inhaled steroids results in better lung function and symptom control, decreased rescue medication and fewer exacerbations. In COPD patients, LABAs such as salmeterol reduce breathlessness, decrease exacerbations and improve health-related quality of life.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:247172 CAPLUS
DOCUMENT NUMBER: 134:256899
TITLE: Combination of loteprednol and β2-adrenoceptor agonists for the treatment of allergies and respiratory tract diseases
INVENTOR(S): Szelenyi, Istvan; Poppe, Hildegard; Heer, Sabine; Engel, Juergen
PATENT ASSIGNEE(S): Asta Medica Ag, Germany
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001022956	A2	20010405	WO 2000-EP9392	20000926 <--
WO 2001022956	A3	20011011		

W: AU, BG, BR, BY, CA, CN, CZ, DZ, EE, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, UZ, YU, ZA, AM, AZ, MD, TJ, TM
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

DE 19947235	A1	20010405	DE 1999-19947235	19990930 <--
CA 2389111	A1	20010405	CA 2000-2389111	20000926 <--
AU 200079074	A	20010430	AU 2000-79074	20000926 <--
BR 2000014374	A	20020625	BR 2000-14374	20000926 <--
EP 1216047	A2	20020626	EP 2000-969304	20000926 <--
EP 1216047	B1	20051012		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

HU 200202753	A2	20021228	HU 2002-2753	20000926 <--
JP 2003510276	T	20030318	JP 2001-526168	20000926 <--
EE 200200163	A	20030415	EE 2002-163	20000926 <--
AT 306271	T	20051015	AT 2000-969304	20000926 <--
CZ 296396	B6	20060315	CZ 2002-1095	20000926 <--
ES 2248131	T3	20060316	ES 2000-969304	20000926 <--
TW 253930	B	20060501	TW 2000-89119863	20000926 <--
PRIORITY APPLN. INFO.:			DE 1999-19947235 A	19990930 <--
			WO 2000-EP9392 W	20000926 <--

AB The invention relates to a novel combination of a soft steroid, especially loteprednol, and at least one β2-adrenoceptor agonist for treating allergies and/or respiratory tract diseases simultaneously, sequentially or sep.; to drugs containing said combination, to methods for producing such drugs and to the use of the novel combination for producing drugs for the simultaneous, sequential or sep. treatment of allergies and/or respiratory tract diseases. Thus and aerosol was prepared that contained 6 μg formoterol fumarate dihydrate and 200 μg loteprednol per stroke. 2H-heptafluoropropane (1.000 g) propellant was cooled to -55°C and 11.7 g Tagat TO in 11.7 g ethanol was added under stirring, followed by the addition of 3.34 g micronized loteprednol etabonate and 0.1 g formoterol fumarate dihydrate. The suspension was diluted with 1,170.0 g 2H-heptafluoropropane, filled in metal containers with valves for dosing 50 μL suspension per stroke.

L9 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:152458 CAPLUS
DOCUMENT NUMBER: 134:183526
TITLE: Method to produce powders for pulmonary or nasal administration
INVENTOR(S): Woolfe, Austen John; Zeng, Xian Ming; Langford, Alan
PATENT ASSIGNEE(S): Norton Healthcare Ltd., UK
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001013885	A1	20010301	WO 2000-GB3230	20000821 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2382216	A1	20010301	CA 2000-2382216	20000821 <--

JP 2003526629 T 20030909 JP 2001-518024 20000821 <--
PRIORITY APPLN. INFO.: US 1999-150095P P 19990820 <--
WO 2000-GB3230 W 20000821 <--

AB A pharmaceutical formulation comprises a mixture of two or more drugs optionally together with one or more excipients, the mixture being formed by the steps of: co-crystallization or co-precipitation of the drugs followed by micronization or milling to produce a uniform powder having a particle size and other properties suitable for formulation for pulmonary or nasal administration. An aqueous solution of 5% salbutamol sulfate:ipratropium bromide (10:1) mixture was prepared and was spray dried. The diameter of particles was less than 3 μm.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:63851 CAPLUS
DOCUMENT NUMBER: 134:120962
TITLE: Powders consisting of particles with a perfectly smooth surface, for use as carriers for the preparation of inhalation mixtures with micronized drugs and method for their preparation
INVENTOR(S): Caponetti, Giovanni; Catellani, Pier Luigi; Bettini, Ruggero; Colombo, Paolo; Ventura, Paolo
PATENT ASSIGNEE(S): Chiesi Farmaceutici S.p.A., Italy
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005429	A2	20010125	WO 2000-EP6690	20000713 <--
WO 2001005429	A3	20011004		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
IT 99MI1582	A1	20010116	IT 1999-MI1582	19990716 <--
EP 1196146	A2	20020417	EP 2000-956180	20000713 <--
EP 1196146	B1	20060913		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY				
BR 2000012351	A	20020611	BR 2000-12351	20000713 <--
AT 339191	T	20061015	AT 2000-956180	20000713 <--
US 6780508	B1	20040824	US 2002-30686	20020416 <--
US 2005118113	A1	20050602	US 2004-806240	20040323 <--

PRIORITY APPLN. INFO.:
IT 1999-MI1582 A 19990716 <--
WO 2000-EP6690 W 20000713 <--
US 2002-30686 A1 20020416

AB Carriers for use in the preparation of mixts. for inhalation powders intended for pulmonary administration of micronized drugs by means of a dry powder inhaler and the method for their preparation are described. An inhalation powder of beclometasone dipropionate mixed with smoother α-lactose monohydrate carrier was prepared

L9 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:645829 CAPLUS

DOCUMENT NUMBER: 133:227824
TITLE: Modified carrier particles for use in dry powder inhalers
INVENTOR(S): Musa, Rossella; Bilzi, Roberto; Ventura, Paolo; Chiesi, Paolo
PATENT ASSIGNEE(S): Chiesi Farmaceutici S.P.A, Italy
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000053158	A1	20000914	WO 2000-EP1773	20000302 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
IT 99MI0455	A1	20000905	IT 1999-MI455	19990305 <--
IT 1309592	B1	20020124		
EP 1158960	A1	20011205	EP 2000-912534	20000302 <--
EP 1158960	B1	20030604		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 1312357	A2	20030521	EP 2003-3987	20000302 <--
EP 1312357	A3	20040107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
AT 241961	T	20030615	AT 2000-912534	20000302 <--
ES 2199793	T3	20040301	ES 2000-912534	20000302 <--
US 6641844	B1	20031104	US 2001-926105	20010927 <--
US 2004009127	A1	20040115	US 2003-423912	20030428 <--
US 2004096516	A1	20040520	US 2003-628453	20030729 <--
US 7132115	B2	20061107		

PRIORITY APPLN. INFO.:		
IT 1999-MI455	A	19990305 <--
EP 2000-912534	A3	20000302 <--
WO 2000-EP1773	W	20000302 <--
US 2001-926105	A3	20010927 <--

AB The invention relates to carrier particles for use in pharmaceutical compns. for the pulmonary administration of medicaments by means of dry powder inhalers. In particular, the invention relates to a novel technol. process for obtaining a carrier modified so as to improve the efficiency of redispersion of active particles and hence increase the respirable fraction. After the treatment of the invention, the surface of said modified carrier particles can also be coated with a suitable additive so as to further improve the respirable fraction. α-Lactose monohydrate 99.75 % was mixed with 0.25% magnesium stearate and 200 μg/dose beclomethasone-17,21-dipropionate. The flowability properties of the carrier did not change significantly even in the presence of ternary mixture and a significant increase of the fine particle fraction was observed with the carrier.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 22 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:645828 CAPLUS
DOCUMENT NUMBER: 133:227823
TITLE: Improved powdery pharmaceutical compositions for

inhalation comprising low percentage lubricant
INVENTOR(S): Musa, Rossella; Ventura, Paolo; Chiesi, Paolo
PATENT ASSIGNEE(S): Chiesi Farmaceutici S.P.A., Italy
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000053157	A1	20000914	WO 1999-EP1449	19990305 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9934093	A1	20000928	AU 1999-34093	19990305 <--
EP 1158958	A1	20011205	EP 1999-915547	19990305 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 9917246	A	20020326	BR 1999-17246	19990305 <--
HU 200200185	A2	20020629	HU 2002-185	19990305 <--
US 6528096	B1	20030304	US 2000-603620	20000626 <--
US 2003133880	A1	20030717	US 2003-358174	20030205 <--
US 2006257330	A1	20061116	US 2006-492105	20060725 <--

PRIORITY APPLN. INFO.:			
WO 1999-EP1449	A	19990305	<--
US 2000-603620	A3	20000626	<--
US 2003-358174	A1	20030205	

AB The invention describes the use of a little percentage of lubricant (0.05-0.5 % by weight) in powdery pharmaceutical compns. for use in dry powder inhalers in order to increase the fine particle dose. A process for coating the surface of the carrier particles with such little amount of lubricant is also claimed. The use of limited amount of the lubricant is safe and allows to prepare ordered stable mixts. without segregation of the active particles during handling and before use. α-Lactose monohydrate was mixed with 0.1%, 0.25%, or 0.5% magnesium stearate and 100, 200, and 400 μg/dose beclomethasone-17,21-dipropionate. Multidose devices filled with the mixture were then tested. No significant increase in fine particle dose was obtained from the concentration of magnesium stearate above 0.25%.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:277843 CAPLUS
DOCUMENT NUMBER: 132:313698
TITLE: Storable active substance concentrate with formoterol
INVENTOR(S): Hochrainer, Dieter; Zierenberg, Bernd
PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2000023065	A2	20000427	WO 1999-EP7581		19991009 <--
WO 2000023065	A3	20000803			
W: AU, BG, BR, CA, CN, CZ, EE, HR, HU, ID, IL, IN, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, TR, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
DE 19847969	A1	20000420	DE 1998-19847969		19981017 <--
CA 2343123	A1	20000427	CA 1999-2343123		19991009 <--
AU 9962019	A	20000508	AU 1999-62019		19991009 <--
AU 764126	B2	20030814			
BR 9914507	A	20010626	BR 1999-14507		19991009 <--
EP 1121112	A2	20010808	EP 1999-948972		19991009 <--
EP 1121112	B1	20020605			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
AT 218331	T	20020615	AT 1999-948972		19991009 <--
EE 200100224	A	20020617	EE 2001-224		19991009 <--
EE 4219	B1	20040216			
JP 2002527473	T	20020827	JP 2000-576840		19991009 <--
JP 3636430	B2	20050406			
NZ 511225	A	20030829	NZ 1999-511225		19991009 <--
SK 285382	B6	20061207	SK 2001-494		19991009 <--
BG 105391	A	20011130	BG 2001-105391		20010329 <--
NO 2001001663	A	20010403	NO 2001-1663		20010403 <--
HR 2001000255	A1	20020430	HR 2001-255		20010406 <--
HK 1041448	A1	20050513	HK 2002-103088		20020424 <--
IN 2005MN00468	A	20050930	IN 2005-MN468		20050520 <--
PRIORITY APPLN. INFO.:			DE 1998-19847969	A	19981017 <--
			US 1998-112380P	P	19981214 <--
			WO 1999-EP7581	W	19991009 <--
			IN 2001-MN321	A3	20010322 <--

AB A storage-stable concentrate of the antiasthmatic, formoterol, in the form of a solution or suspension for use in inhalers contains formoterol base or a salt or addition product thereof at a concentration of 75-500 mg formoterol/mL in a polar (preferably protic) liquid, e.g. aqueous NaCl solution, EtOH, or a mixture thereof. The formulation may addnl. contain an inorg. or organic acid to adjust the pH to 2.0-7.0, preservatives, antioxidants, complexing agents, and addnl. active substances such as β-mimetics, cholinergic antagonists, antiallergic agents, leukotriene antagonists, and/or steroids. Thus, a concentrate comprised 5 mg formoterol (particle size 5 μm) in 0.015 mL 20 weight% aqueous NaCl solution adjusted to pH 5.0 with fumaric acid. An inhalant was prepared by mixing this suspension with 4.5 mL H2O/EtOH (1:1) containing benzalkonium chloride 0.45 and Na EDTA 2.25 mg and adjusting the pH to 5.0 with HCl.

L9 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2000:254113 CAPLUS
DOCUMENT NUMBER:	132:284231
TITLE:	Storable formulation of active substance
INVENTOR(S):	Hochrainer, Dieter; Zierenberg, Bernd
PATENT ASSIGNEE(S):	Boehringer Ingelheim Pharma K.-G., Germany
SOURCE:	Ger. Offen., 8 pp. CODEN: GWXXBX
DOCUMENT TYPE:	Patent
LANGUAGE:	German
FAMILY ACC. NUM. COUNT:	4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19847970	A1	20000420	DE 1998-19847970	19981017 <--
CA 2345675	A1	20000427	CA 1999-2345675	19991009 <--

WO 2000023037	A1	20000427	WO 1999-EP7589	19991009	<--
W: AE, AU, BG, BR, CA, CN, CZ, EE, HR, HU, ID, IL, IN, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, TR, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
AU 9963370	A	20000508	AU 1999-63370	19991009	<--
AU 761858	B2	20030612			
BR 9914608	A	20010703	BR 1999-14608	19991009	<--
EP 1119334	A1	20010801	EP 1999-950688	19991009	<--
EP 1119334	B1	20030129			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
TR 200101095	T2	20010821	TR 2001-200101095	19991009	<--
HU 200103888	A2	20020228	HU 2001-3888	19991009	<--
HU 224244	B1	20050628			
EE 200100225	A	20020815	EE 2001-225	19991009	<--
EE 4514	B1	20050815			
JP 2002527205	T	20020827	JP 2000-576814	19991009	<--
NZ 511646	A	20021126	NZ 1999-511646	19991009	<--
AT 231715	T	20030215	AT 1999-950688	19991009	<--
EP 1291013	A2	20030312	EP 2002-14579	19991009	<--
EP 1291013	A3	20031126			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY					
ES 2187202	T3	20030516	ES 1999-950688	19991009	<--
PT 1119334	T	20030630	PT 1999-950688	19991009	<--
EG 23069	A	20040229	EG 1999-1285	19991014	<--
TW 466111	B	20011201	TW 1999-88117882	19991015	<--
IN 2001MN00352	A	20050715	IN 2001-MN352	20010303	<--
BG 105390	A	20011130	BG 2001-105390	20010329	<--
BG 64523	B1	20050630			
NO 2001001830	A	20010618	NO 2001-1830	20010410	<--
NO 321748	B1	20060626			
HR 2001000273	A1	20020630	HR 2001-273	20010412	<--
US 2001032643	A1	20011025	US 2001-871500	20010531	<--
US 6481435	B2	20021119			
US 2003066524	A1	20030410	US 2002-256781	20020927	<--
US 6986346	B2	20060117			
US 2005159441	A1	20050721	US 2005-77681	20050311	<--
US 7040311	B2	20060509			

PRIORITY APPLN. INFO.:	DE 1998-19847968	A	19981017 <--
	DE 1998-19847970	A	19981017 <--
	US 1998-112380	P	19981214 <--
	US 1998-112380P	P	19981214 <--
	EP 1999-950688	A3	19991009 <--
	WO 1999-EP7589	W	19991009 <--
	US 1999-416476	A1	19991012 <--
	US 2001-871500	A1	20010531 <--
	US 2002-256781	A1	20020927

AB A storage-stable formulation of an active substance in the form of a concentrated solution or suspension in an atomizer or cartridge is provided for use in inhalers. The concentrate is diluted with H2O or solvent immediately before the 1st use of the composition Stability of suspended particles of the active substance in the formulation is enhanced by addition of an alkali metal or ammonium chloride or salt of an organic acid. The active substance may be a β-mimetic, anticholinergic, or antiallergic drug, platelet-activating factor antagonist, leukotriene antagonist, and/or steroid. Thus, a suspension of 5 mg formoterol (particle size 5 μm) in 0.015 mL water was adjusted to pH 5.0 with fumaric acid for storage. This suspension was diluted with 4.5 mL H2O/EtOH (1:1) containing benzalkonium chloride 0.45 and Na EDTA 2.25 mg, adjusted to pH 5.0 with HCl, for inhalation.

L9 ANSWER 25 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:254112 CAPLUS
DOCUMENT NUMBER: 132:284230
TITLE: Storable liquid formoterol formulation
INVENTOR(S): Hochrainer, Dieter; Zierenberg, Bernd
PATENT ASSIGNEE(S): Boehringer Ingelheim Pharma K.-G., Germany
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19847969	A1	20000420	DE 1998-19847969	19981017 <--
CA 2343123	A1	20000427	CA 1999-2343123	19991009 <--
WO 2000023065	A2	20000427	WO 1999-EP7581	19991009 <--
WO 2000023065	A3	20000803		
W: AU, BG, BR, CA, CN, CZ, EE, HR, HU, ID, IL, IN, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, TR, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9962019	A	20000508	AU 1999-62019	19991009 <--
AU 764126	B2	20030814		
BR 9914507	A	20010626	BR 1999-14507	19991009 <--
EP 1121112	A2	20010808	EP 1999-948972	19991009 <--
EP 1121112	B1	20020605		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101096	T2	20011221	TR 2001-200101096	19991009 <--
HU 200103925	A2	20020529	HU 2001-3925	19991009 <--
AT 218331	T	20020615	AT 1999-948972	19991009 <--
EE 200100224	A	20020617	EE 2001-224	19991009 <--
EE 4219	B1	20040216		
JP 2002527473	T	20020827	JP 2000-576840	19991009 <--
JP 3636430	B2	20050406		
PT 1121112	T	20021129	PT 1999-948972	19991009 <--
ES 2178479	T3	20021216	ES 1999-948972	19991009 <--
NZ 511225	A	20030829	NZ 1999-511225	19991009 <--
SK 285382	B6	20061207	SK 2001-494	19991009 <--
US 6150418	A	20001121	US 1999-416474	19991012 <--
TW 562676	B	20031121	TW 1999-88117879	19991015 <--
BG 105391	A	20011130	BG 2001-105391	20010329 <--
NO 2001001663	A	20010403	NO 2001-1663	20010403 <--
HR 2001000255	A1	20020430	HR 2001-255	20010406 <--
ZA 2001003056	A	20020123	ZA 2001-3056	20010412 <--
HK 1041448	A1	20050513	HK 2002-103088	20020424 <--
JP 2005047933	A	20050224	JP 2004-323973	20041108 <--
IN 2005MN00468	A	20050930	IN 2005-MN468	20050520 <--

PRIORITY APPLN. INFO.:	DE 1998-19847969	A	19981017 <--
	US 1998-112380	P	19981214 <--
	US 1998-112380P	P	19981214 <--
	JP 2000-576840	A3	19991009 <--
	WO 1999-EP7581	W	19991009 <--
	IN 2001-MN321	A3	20010322 <--

AB A storage-stable formulation of the β2-adrenergic agonist, formoterol, in the form of a concentrated solution or suspension is provided for use in inhalers for inhalational or nasal therapy of asthma. The concentrate is diluted with H2O or solvent immediately before the 1st use of the composition Stability of the formulation is enhanced by addition of an organic

or inorg. acid, preferably in combination with a complexing agent, especially when the solvent contains EtOH. The formulation may also contain addnl. β-mimetics, anticholinergics, antiallergic drugs, platelet-activating factor antagonists, leukotriene antagonists, and/or steroids. Thus, a suspension of 5 mg formoterol (particle size 5 μm) in 0.015 mL 20 weight% NaCl was adjusted to pH 5.0 with fumaric acid for storage. This suspension was diluted with 4.5 mL H2O/EtOH (1:1) containing benzalkonium chloride 0.45 and Na EDTA 2.25 mg, adjusted to pH 5.0 with HCl, for inhalation.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2000:92868 CAPLUS

DOCUMENT NUMBER: 132:117313

TITLE: Bronchodilator response to albuterol after regular formoterol and effects of acute corticosteroid administration

AUTHOR(S): Lipworth, Brian J.; Aziz, Imran

CORPORATE SOURCE: Department of Clinical Pharmacology and Therapeutics and Respiratory Medicine Ninewells Hospital and Medical School, University of Dundee, Dundee, DD1 9SY, UK

SOURCE: Chest (2000), 117(1), 156-162
CODEN: CHETBF; ISSN: 0012-3692

PUBLISHER: American College of Chest Physicians

DOCUMENT TYPE: Journal

LANGUAGE: English

AB There is controversy about the development of bronchodilator subsensitivity after regular administration of long-acting β2-agonists. The purpose of the study was to evaluate whether regular treatment with formoterol affects the bronchodilator response to repeated puffs of albuterol, and also to assess the effects of acute administration of a bolus dose of IV or inhaled corticosteroid. Twelve patients (mean [SD] age, 43 [15] years; FEV1, 57 [17] % predicted) with stable, moderate to severe persistent asthma who were all taking inhaled corticosteroids were evaluated in a randomized, placebo-controlled, double-blind, double-dummy, crossover study. Patients received treatments each for 2 wk followed by a bolus (IV/inhaled) of corticosteroid or placebo: (1) placebo inhaler bid + bolus placebo; (2) formoterol Turbuhaler 24 μg metered dosage bid (delivered dosage 18 μg bid) + placebo; (3) formoterol 24 μg bid + bolus IV hydrocortisone, 200 mg; or (4) formoterol 24 μg bid + bolus inhaled budesonide, 1,600 μg. Bronchodilator response to repeated puffs of albuterol (200 to 1,600 μg) for > 80 min was measured at 2 h after bolus administration of placebo or corticosteroid. The study was powered at the 80% level to detect a 20% difference in area under curve between 20 and 80 min (AUC) for FEV1 response to albuterol as change from baseline (primary end point). There was significant subsensitivity ($p = 0.01$) of the mean albuterol FEV1 response (as AUC, L + s) after formoterol alone (737) as compared to placebo (1,453) along with partial reversal by steroid administration: formoterol + hydrocortisone (1,050), and formoterol + budesonide (942). There was a similar pattern of subsensitivity ($p = 0.03$) for the mean albuterol forced expiratory flow between 25% and 75% of vital capacity response (as AUC, L): placebo (2,149), formoterol alone (1,002), formoterol + hydrocortisone (1,402), and formoterol + budesonide (1,271). Regular treatment with formoterol produced significant bronchodilator subsensitivity to repeated puffs of albuterol, which was partially reversed by a bolus dose of systemic or inhaled corticosteroid.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:15933 CAPLUS
DOCUMENT NUMBER: 132:45179
TITLE: Asthma quality of life during 1 year of treatment with budesonide with or without formoterol
AUTHOR(S): Juniper, E. F.; Svensson, K.; O'Byrne, P. M.; Barnes, P. J.; Bauer, C-A.; Lofdahl, C-G. A.; Postma, D. S.; Pauwels, R. A.; Tattersfield, A. E.; Ullman, A.
CORPORATE SOURCE: Dept of Clinical Epidemiology & Biostatistics, McMaster University, Hamilton, ON, Can.
SOURCE: European Respiratory Journal (1999), 14(5), 1038-1043
CODEN: ERJOEI; ISSN: 0903-1936
PUBLISHER: Munksgaard International Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Formoterol and Corticosteroids Establishing Therapy (FACET) study has provided the first opportunity to examine the long-term effects of inhaled steroids and long-acting β2-agonists on asthma-specific quality of life. The objectives of the present study were to: evaluate the effects of long-term (1 yr) formoterol and increasing doses of budesonide on asthma quality of life; 2) to determine whether initial improvements in quality of life are sustained when improvements in clin. indexes persist; and 3) to evaluate the long-term relationship between changes in clin. indexes and changes in quality of life. Of the 852 asthmatic adults enrolled, 470 from five countries participated in this quality of life evaluation. After a 4-wk run-in on 1,600 μg budesonide, patients were randomized to either 200 μg (Bud200) or 800 μg budesonide (Bud800) in combination with either 24 μg formoterol (F) or placebo daily for 1 yr. The Asthma Quality of Life Questionnaire (AQLQ) was completed and conventional clin. indexes measured at enrollment and randomization and on seven occasions during the following 12 mo. During the run-in, there was an improvement in AQLQ score (changes (Δ) in overall score≈0.50; $p<0.0001$). After randomization, there was a further improvement in the Bud800+F group (Δ=0.21; $p=0.028$). One month post-randomization, improvements in all groups stabilized and were sustained throughout the 12 mo in a pattern very similar to that observed for the conventional clin. indexes. The correlation of individual patient changes in clin. indexes and changes in AQLQ score during the 12-mo randomized period were weak to moderate (maximum $r=0.51$). Improvements in quality of life, which were greatest in the 800 μg budesonide plus 24 μg formoterol group, were sustained throughout the 12 mo in a similar manner to the clin. indexes. Long-term changes in conventional clin. indexes cannot be used to predict the effect of treatment on individual patient experience.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:133202 CAPLUS
DOCUMENT NUMBER: 130:200925
TITLE: Finely divided pharmaceutical particles for inhalation
INVENTOR(S): Briggner, Lars-Erik; Bystrom, Katarina; Jakupovic, Edib; Trofast, Eva; Trofast, Jan
PATENT ASSIGNEE(S): Astra Aktiebolag, Swed.
SOURCE: U.S., 7 pp., Cont.-in-part of U.S. Ser. No. 459,660.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 5874063	A	19990223	US 1996-606655	19960226	<--
AU 9215347	A	19921117	AU 1992-15347	19920324	<--
AU 662519	B2	19950907			
EP 580648	A1	19940202	EP 1992-907877	19920324	<--
EP 580648	B1	19960508			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE					
JP 06506454	T	19940721	JP 1992-507195	19920324	<--
JP 3400999	B2	20030428			
EP 680752	A2	19951108	EP 1995-111178	19920324	<--
EP 680752	A3	19951122			
EP 680752	B1	20011114			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE					
PL 168232	B1	19960131	PL 1992-301008	19920324	<--
RU 2112507	C1	19980610	RU 1993-58260	19920324	<--
SK 280310	B6	19991108	SK 1993-1088	19920324	<--
CZ 286936	B6	20000816	CZ 1993-2116	19920324	<--
JP 2003155228	A	20030527	JP 2002-347368	19920324	<--
NO 9303575	A	19931006	NO 1993-3575	19931006	<--
NO 311867	B1	20020211			
FI 105388	B1	20000815	FI 1993-4429	19931008	<--
US 5709884	A	19980120	US 1995-379471	19950130	<--
US 5637620	A	19970610	US 1995-459660	19950602	<--
US 5562923	A	19961008	US 1995-479494	19950607	<--
PRIORITY APPLN. INFO.:			SE 1991-1090 A	19910411	<--
			SE 1993-2777 A	19930827	<--
			US 1993-129204 B1	19931025	<--
			US 1995-379471 B3	19950130	<--
			US 1995-459660 A2	19950602	<--
			US 1995-479494 A2	19950607	<--
			SE 1996-141 A	19960116	<--
			CS 1993-2116 A	19920324	<--
			EP 1992-907877 A3	19920324	<--
			JP 1992-507195 A3	19920324	<--
			WO 1992-SE186 A	19920324	<--
			WO 1994-SE780 W	19940825	<--

AB There are described finely divided particles of a pharmaceutical substance, wherein the substance when submitted to water vapor gives off heat of less than 1.2 J per g, processes for their production and pharmaceutical formulations containing them. An example is given of salbutamol sulfate (25%) and lactose (75%) conditioned with water at relative humidity 55-65%, nonconditioned micronized substance mixture (5-8 J/g) and conditioned micronized mixture (<0.5 J/g).

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:42582 CAPLUS
DOCUMENT NUMBER: 130:100677
TITLE: Antiasthmatic pharmaceutical composition containing formoterol and rofleponide or their salts and derivatives
INVENTOR(S): Axelsson, Bengt; Kallstrom, Leif; Trofast, Jan
PATENT ASSIGNEE(S): Astra Aktiebolag (Publ), Swed.
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9900134	A1	19990107	WO 1998-SE1089	19980608	<--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,					

DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

CA 2295076	A1	19990107	CA 1998-2295076		19980608 <--
AU 9881350	A	19990119	AU 1998-81350		19980608 <--
EP 1009408	A1	20000621	EP 1998-931163		19980608 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
EE 9900594	A	20000815	EE 1999-594		19980608 <--
TR 9903272	T2	20000821	TR 1999-3272		19980608 <--
BR 9810452	A	20000905	BR 1998-10452		19980608 <--
HU 200002533	A2	20001228	HU 2000-2533		19980608 <--
JP 2002510310	T	20020402	JP 1999-505479		19980608 <--
MX 9911676	A	20000531	MX 1999-11676		19991214 <--
NO 9906438	A	20000228	NO 1999-6438		19991223 <--
PRIORITY APPLN. INFO.:			US 1997-883823	A	19970627 <--
			WO 1998-SE1089	W	19980608 <--

AB A composition or kit having as a first active ingredient formoterol (I), or a salt or solvate derivative thereof, and having as a second active ingredient rofleponide (II), or a fatty acid ester thereof is disclosed. Also disclosed are methods for treating respiratory disorders using this composition or kit. II palmitate 10, dipalmitoylphosphatidylcholine 63, dimyristoylphosphatidylcholine 24, sodium dipalmitoylphosphatidylglycerol 3, and racemic α-tocopherol 0.1 parts were dissolved in 1300 parts tertiary butanol and the solution was freeze-dried to obtain a powder which was micronized to particle size of less than 5μm. I fumarate dihydrate 0.5 parts was mixed with 79.5 parts of lactose monohydrate and micronized. This micronized mixture (80 parts) was added to the steroid/lipid freeze-dried powder (20 parts) and filled into a capsule for use in a dry powder inhaler.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:640189 CAPLUS
DOCUMENT NUMBER: 130:47320
TITLE: Subsensitivity to bronchoprotection against adenosine monophosphate challenge following regular once-daily formoterol
AUTHOR(S): Aziz, I.; Tan, K. S.; Hall, I. P.; Devlin, M. M.; Lipworth, B. J.
CORPORATE SOURCE: Dept of Clinical Pharmacology and Therapeutics, Ninewells Hospital and, University of Dundee, Dundee, UK
SOURCE: European Respiratory Journal (1998), 12(3), 580-584
CODEN: ERJOEI; ISSN: 0903-1936
PUBLISHER: Munksgaard International Publishers Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Regular treatment with inhaled long-acting β2-agonists leads to subsensitivity to their bronchoprotective effects, although the effect of dosing frequency on this subsensitivity is not known. The aim of this study was to assess whether a once-daily dosing regimen with formoterol might be associated with a lesser degree of subsensitivity. In a randomized placebo-controlled double-blind, double-dummy crossover study 10 asthmatics treated with inhaled steroids (mean age 31 yrs, forced expiratory volume in one second (FEV1) 82% predicted) received 1 wk of treatment with: formoterol dry powder 24 μg twice daily (08:00 and 20:00 h); formoterol

24 μg once daily (20:00 h); or identical placebo. Adenosine monophosphate (AMP) bronchial challenge was performed 12 h after the first and the last dose of each treatment. There was significant loss of protection with formoterol twice daily between the first and last dose (geometric mean provocative concentration causing a 20% fall in FEV1 (PC20)): 475 vs. 129 mg•mL-1 (a 3.7-fold loss, p=0.006) and with formoterol once daily: 367 vs. 127 mg•mL-1 (a 2.9-fold loss, p=0.005), compared with placebo: 71 vs. 75 mg•mL-1 (nonsignificant). There was no significant difference in the degree of loss of protection between formoterol once and twice daily. For first-dose protection there was a significant difference between active treatments and placebo, but after the last dose the residual protection between active treatments and placebo was not significant. Thus, in patients taking inhaled corticosteroids, regular formoterol 24 μg once daily induces a similar degree of subsensitivity to adenosine monophosphate bronchial challenge as with formoterol 24 μg twice daily. This in turn suggests that even with a 24-h dosing interval there is the development of tolerance to formoterol by prolonged occupancy of airway β2-adrenoceptors.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:273803 CAPLUS
DOCUMENT NUMBER: 129:63010
TITLE: Bronchodilators and corticosteroids in the treatment of asthma
AUTHOR(S): Vianna, Elcio Oliveira; Martin, Richard J.
CORPORATE SOURCE: The Department of Medicine, National Jewish Medical and Research Center, Denver, CO, 80206, USA
SOURCE: Drugs of Today (1998), 34(3), 203-223
CODEN: MDACAP; ISSN: 0025-7656
PUBLISHER: J. R. Prous, S.A.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review, with 164 refs. Despite advancements in treatment, the incidence of asthma, asthma-related deaths, and hospitalizations for asthma have increased significantly during the past decade. Although asthma mortality may now be decreasing, reasons for the worsening of morbidity and mortality in asthma remain unclear. These unexpected changes in asthma severity have sparked renewed interest in research into the pathogenesis and treatment of the condition. β2-Adrenergic agonists are the most commonly used class of drugs for the treatment of asthma. Recent concerns about safety issues for β-agonists caused reevaluation of prescribing practices, and using them on an as-needed basis is now more frequently accepted and recommended. In acute asthma, a β2-adrenergic agonist is still the medication of choice. Long-acting salmeterol and formoterol, administered only twice daily, can decrease symptoms of asthma during day and nighttime. On the other hand, the role of tolerance to their bronchodilator and bronchoprotective effects is still to be determined in the treatment of asthma. Theophylline, whose use has been limited by the potential for serious toxicity, may regain an important position in asthma treatment with the development of the knowledge about its anti-inflammatory actions. Dosing theophylline on a time-related basis also improves the risk/benefit ratio and makes it a useful drug for nocturnal asthma. Ipratropium bromide, an anticholinergic drug, still awaits a defined role in the treatment of asthma. Studies on its use for acute asthma have not achieved consensus and, for nocturnal asthma, the short duration of effect limits the benefits. Corticosteroids, including inhaled steroids, have measurable effects on symptoms, lung function, bronchial responsiveness, and inflammation associated with asthma. Side effects of chronic use limit systemic, but not inhaled administration. Newer prepns., like budesonide, flunisolide and fluticasone, decrease the incidence of possible side effects related to

inhaled steroids by having better ratio of topical to systemic potency. Daily doses <1600 μg of beclomethasone (or equivalent) are considered safe and higher doses should be reserved for patients with moderate to severe asthma. Although future trials are necessary to clarify many issues related to dosing of inhaled steroids, chronotherapy studies have shown that single administration between 3 and 5:30 p.m. may be as effective as 4 times a day dosing.

REFERENCE COUNT: 164 THERE ARE 164 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:273646 CAPLUS
DOCUMENT NUMBER: 129:22771
TITLE: Long-acting inhaled β2-agonists in asthma therapy
AUTHOR(S): Moore, Robert H.; Khan, Ayesha; Dickey, Burton F.
CORPORATE SOURCE: Baylor College of Medicine and the Houston Veterans Affairs Medical Center, Houston, TX, 77030, USA
SOURCE: Chest (1998), 113(4), 1095-1108
CODEN: CHETBF; ISSN: 0012-3692
PUBLISHER: American College of Chest Physicians
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 183 refs. This paper reviews the pharmacol. of the long-acting inhaled β2-agonists, salmeterol and formoterol, summarize results of their clin. trials, evaluate their safety records, and discuss their roles in the treatment of asthma. Preclin. and clin. studies involving salmeterol or formoterol were identified by a MEDLINE search, weekly computerized literature updates, and manual searches. Studies of satisfactory quality were chosen for review. Salmeterol and formoterol are potent and selective β2-adrenoceptor agonists with durations of action >12 h. Their major differences are that formoterol has a rapid onset of action and is a partial agonist of high intrinsic efficacy, whereas salmeterol has a delayed onset and is a partial agonist of low intrinsic efficacy. Twice daily use of either drug results in improved lung function, reduced symptoms, and a better quality of life. These agents protect against exercise-induced asthma for 12 h and eliminate nighttime awakening in most patients. Limited tolerance develops, especially to their bronchoprotective effects, but their improvement of lung function is sustained. Regular use of salmeterol or formoterol provides subjective and objective amelioration of asthma in patients experiencing excessive symptoms or physiol. impairment despite the regular administration of low doses of inhaled corticosteroids (equivalent to approx. 500 μg/d of beclomethasone). Intermittent use of either long-acting β2-agonist can provide prolonged protection against exercise-induced asthma or nighttime symptoms. Patients should be instructed to continue taking inhaled steroids when long-acting β2-agonists are administered on a regular schedule and to not take long-acting β2-agonists between regularly scheduled doses. Used properly, they are effective and safe adjunctive agents in the treatment of asthma.

REFERENCE COUNT: 160 THERE ARE 160 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:160008 CAPLUS
DOCUMENT NUMBER: 128:238866
TITLE: Formoterol: an update of its pharmacological properties and therapeutic efficacy in the management of asthma
AUTHOR(S): Bartow, Rebecca A.; Brogden, Rex N.
CORPORATE SOURCE: Adis International Limited, Auckland, N. Z.
SOURCE: Drugs (1998), 55(2), 303-322

CODEN: DRUGAY; ISSN: 0012-6667
PUBLISHER: Adis International Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 89 refs. Formoterol, a selective β2-adrenoceptor agonist, produces ED-proportional bronchodilation, which persists for up to 12 h, in patients with reversible obstructive respiratory disease. Bronchodilation is significant within minutes of inhalation, maximal within 2 h, and at therapeutic doses is equivalent to that produced by standard doses of traditional β2-agonists. In single-dose studies comparing the two long-acting β2-agonists formoterol and salmeterol, significant bronchodilation is achieved more rapidly with formoterol than salmeterol. Duration of bronchodilation is similar with both drugs. The therapeutic efficacy of inhaled formoterol has been equal to or greater than that of salbutamol (albuterol), fenoterol and terbutaline in both short and long term clin. trials. Formoterol reduces symptoms of nocturnal asthma and reduces the need for rescue medication compared with salbutamol. Recent studies have shown that the addition of inhaled formoterol 12 or 24μg twice daily to existing inhaled corticosteroid regimens improves lung function and reduces asthma symptoms compared with placebo. In one well designed study, the frequency of severe exacerbations of asthma over 12 mo was decreased by adding formoterol to existing regimens of inhaled corticosteroids. Tolerance to the bronchodilator response of formoterol has not been observed in long term clin. trials. Because of its long duration of action, formoterol offers significant therapeutic advantages over shorter-acting β2-agonists in the treatment of nocturnal and exercise-induced asthma. Formoterol is effective in preventing exercise-induced asthma in adults and children and confers significantly more protection than salbutamol when administered 3 and 12 h before exercise. In general, inhaled formoterol is well tolerated. The most commonly reported adverse effects, tremor and palpitations, are those traditionally associated with the use of β2-agonists. Oral formoterol and high doses of inhaled formoterol are associated with more adverse events than are the recommended doses of 6 to 24μg. Formoterol is currently recommended for use as an alternative to increasing inhaled steroid dosage in patients whose symptoms are inadequately controlled despite therapy with low to moderate doses of inhaled steroids and intermittent short-acting β2-agonists, and results of recent studies support therapeutic guidelines. Long term clin. studies comparing formoterol and salmeterol have not yet been published. Further studies to evaluate the earlier use of formoterol in patients with mild to moderate asthma are needed to determine the role and long term safety of formoterol in the management of asthma.
REFERENCE COUNT: 89 THERE ARE 89 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:223895 CAPLUS
DOCUMENT NUMBER: 126:216649
TITLE: (Endo,syn)-(-)-3-(3-Hydroxy-1-oxo-2-phenylpropoxy)-8-methyl-8-(methylethyl)-8-azoniabicyclo[3.2.1]octane salts as antiasthmatic pharmaceuticals
INVENTOR(S): Banholzer, Rolf; Reichl, Richard; Disse, Bernd; Speck, Georg
PATENT ASSIGNEE(S): Boehringer Ingelheim Kg, Germany
SOURCE: Ger. Offen., 5 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19528145	A1	19970206	DE 1995-19528145	19950801 <--
TW 449597	B	20010811	TW 1996-85108367	19960710 <--
CZ 291998	B6	20030716	CZ 1996-2253	19960730 <--
ZA 9606494	A	19970203	ZA 1996-6494	19960731 <--
CA 2226934	A1	19970213	CA 1996-2226934	19960731 <--
WO 9705136	A1	19970213	WO 1996-EP3364	19960731 <--
W: AU, BG, BR, BY, CA, CN, EE, JP, KR, KZ, LT, LV, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9667397	A	19970226	AU 1996-67397	19960731 <--
HU 9602104	A2	19970428	HU 1996-2104	19960731 <--
EP 843676	A1	19980527	EP 1996-927638	19960731 <--
EP 843676	B1	20011107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1191535	A	19980826	CN 1996-195701	19960731 <--
CN 1120841	B	20030910		
IL 118986	A	19981206	IL 1996-118986	19960731 <--
BR 9609951	A	19990202	BR 1996-9951	19960731 <--
JP 11510150	T	19990907	JP 1997-507251	19960731 <--
RU 2171258	C2	20010727	RU 1998-103895	19960731 <--
AT 208390	T	20011115	AT 1996-927638	19960731 <--
PT 843676	T	20020429	PT 1996-927638	19960731 <--
HR 960365	B1	20020430	HR 1996-365	19960731 <--
ES 2167592	T3	20020516	ES 1996-927638	19960731 <--
PL 183789	B1	20020731	PL 1996-324804	19960731 <--
SK 283260	B6	20030401	SK 1998-112	19960731 <--
RO 120260	B1	20051130	RO 1998-142	19960731 <--
EE 4614	B1	20060417	EE 1998-28	19960731 <--
BG 63780	B1	20021229	BG 1998-102202	19980120 <--
NO 9800424	A	19980130	NO 1998-424	19980130 <--
NO 317561	B1	20041115		
HK 1013597	A1	20020726	HK 1998-111418	19981021 <--
HK 1010879	A1	20040116	HK 1998-112141	19981120 <--
US 6299861	B1	20011009	US 1999-369711	19990806 <--
PRIORITY APPLN. INFO.:			DE 1995-19528145 A	19950801 <--
			WO 1996-EP3364 W	19960731 <--
			US 1998-983420 B1	19980114 <--

AB The use of title compds. as antiasthmatic pharmaceuticals is described. Thus, 18 g ipratropium bromide was purified by HPLC and resolved on Chiralcel OD columns to give both L and D-isomers. An aerosol formulation contained the L-isomer 0.005, sorbitan trioleate 0.1, and monofluorotrichloromethane and difluoromethane (2:3) to 100%.

L9 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:578310 CAPLUS
DOCUMENT NUMBER: 125:212342
TITLE: A dose-response study with formoterol Turbuhaler as maintenance therapy in asthmatic patients
AUTHOR(S): Schreurs, A. J. M.; Damste, H. E. J. Sinninghe; De Graaff, C. S.; Greefhorst, A. P. M.
CORPORATE SOURCE: Dept Pulmonology, Onze Lieve Vrouwe Gasthuis, Amsterdam, 1090 HM, Neth.
SOURCE: European Respiratory Journal (1996), 9(8), 1678-1683
CODEN: ERJOEI; ISSN: 0903-1936
PUBLISHER: Munksgaard
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The aim of this randomized, double-blind, parallel group study was to determine

the lowest ED of 6, 12 and 24 μg formoterol fumarate dihydrate Turbuhaler b.i.d. compared with placebo. The 4 wk treatment was preceded by a 1 wk run-in period. Morning peak expiratory flow (PEF) before intake of the study drug was the primary variable. Patients recorded PEF, prior to and 15 min after intake of the study drug (immediate response), asthma symptoms, and use of rescue medication morning and evening. Of 221 patients (71 females and 150 males), 194 were included in the efficacy per protocol (PP) anal.; mean age 47 yrs, mean forced expiratory volume in one second (FEV1) 2.01 L (58% of predicted), mean FEV1 reversibility 27% at entry. Ninety percent used inhaled steroids. Compared with placebo, 6 μg formoterol b.i.d. was found to be the lowest ED in the morning ($p=0.008$) and evening ($p=0.0041$) PEF. The mean increases in PEF were 22 and 23 L*min-1 resp., compared with placebo. After 6 μg formoterol, the mean immediate increase in morning PEF was 42 L*min-1 compared to an increase of only 9 L*min-1 after placebo ($p<0.0001$). All doses produced a statistically significant decrease in asthma symptoms, day and night, and the need for rescue medication at night. All doses were well-tolerated. In conclusion, the lowest ED in this study was formoterol Turbuhaler 6 μg b.i.d.

L9 ANSWER 36 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:513756 CAPLUS
DOCUMENT NUMBER: 125:151185
TITLE: Pharmaceutical aerosols containing sugars and fluorocarbons or fluorochlorohydrocarbons
INVENTOR(S): Green, Alexander Peter
PATENT ASSIGNEE(S): Glaxo Group Limited, UK
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9619968	A1	19960704	WO 1995-EP5085		19951222 <--
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ					
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9643469	A	19960719	AU 1996-43469		19951222 <--
EP 799024	A1	19971008	EP 1995-942192		19951222 <--
EP 799024	B1	20000809			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV					
JP 10511376	T	19981104	JP 1996-520196		19951222 <--
JP 3776124	B2	20060517			
AT 195249	T	20000815	AT 1995-942192		19951222 <--
ES 2150022	T3	20001116	ES 1995-942192		19951222 <--
PT 799024	T	20001229	PT 1995-942192		19951222 <--
US 5955439	A	19990921	US 1997-849538		19970624 <--
GR 3034477	T3	20001229	GR 2000-402166		20000926 <--
PRIORITY APPLN. INFO.:			GB 1994-26252	A	19941224 <--
			WO 1995-EP5085	W	19951222 <--

AB Aerosol formulations for the administration of medicaments by inhalation comprises (a) particulate medicament; (b) at least one sugar; and (c) a fluorocarbon or hydrogen-containing chlorofluorocarbon propellant. Particulate lactose was dispensed into clean, dry glass bottles and the metering valve was fitted onto the bottles, then micronized fluticasone

propionate mixed with 1,1,1,2-tetrafluoroethane was pressure-filled into the canisters through the metering valve. The resultant inhalers delivered 25 μg of fluticasone propionate/actuation.

L9 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:464566 CAPLUS
DOCUMENT NUMBER: 125:96168
TITLE: Propellant mixture for aerosol formulation
INVENTOR(S): Sapsford, Andrew; Savage, Andrew Patrick
PATENT ASSIGNEE(S): Glaxo Group Limited, UK
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9618384	A1	19960620	WO 1995-EP4824		19951208 <--
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ					
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9642604	A	19960703	AU 1996-42604		19951208 <--
EP 789557	A1	19970820	EP 1995-941077		19951208 <--
EP 789557	B1	20020424			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
JP 10510521	T	19981013	JP 1995-518236		19951208 <--
AT 216575	T	20020515	AT 1995-941077		19951208 <--
ES 2174970	T3	20021116	ES 1995-941077		19951208 <--
US 6153173	A	20001128	US 1997-849217		19970721 <--
US 6309624	B1	20011030	US 2000-650283		20000829 <--
PRIORITY APPLN. INFO.:			GB 1994-25160	A	19941210 <--
			WO 1995-EP4824	W	19951208 <--
			US 1997-849217	A1	19970721 <--

AB This invention relates to aerosol formulations which comprise (a) 1,1,1,2-tetrafluoroethane, 1,1,1,2,3,3,3-heptafluoropropane or mixts. thereof as propellant, (b) 1,1,2,2,3-pentafluoropropane as co-propellant, and (c) particulate medicament. A method of treating respiratory disorders which comprises administration by inhalation of an effective amount of a pharmaceutical aerosol formulation as defined is also described. Micronized salmeterol xinafoate was placed into a bottle with 1,1,2,2,3-pentafluoropropane and the bottle was sealed. 1,1,1,2-Tetrafluoroethane was added under pressure through the valve. The resultant inhaler delivered 25 μg of salmeterol xinafoate per actuation.

L9 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1988:118997 CAPLUS
DOCUMENT NUMBER: 108:118997
TITLE: Compositions of liposomes and beta-2-receptor active substances, for administration to the respiratory tract
INVENTOR(S): Axelsson, Bengt Ingemar; Bystroem, Ulla Katarina; Dahlbaeck, Carl Magnus Olof; Kaellstroem, Leif Arne; Nilsson, Per Gunnar; Trofast, Jan William
PATENT ASSIGNEE(S): Draco AB, Swed.
SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
WO 8705803	A1	19871008	WO 1987-SE148		19870323	<--
W: AT, AU, BB, BG, BR, CH, DE, DK, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU						
RW: AT, BE, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG						
AU 8772076	A	19871020	AU 1987-72076		19870323	<--
JP 63502899	T	19881027	JP 1987-502142		19870323	<--
EP 298984	A1	19890118	EP 1987-902176		19870323	<--
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE						
DK 8706231	A	19871127	DK 1987-6231		19871127	<--
PRIORITY APPLN. INFO.:			SE 1986-1457	A	19860401	<--
			WO 1987-SE148	A	19870323	<--

AB A pharmaceutical composition consists of a dry powder comprising liposomes and a β2-receptor-active substance, the latter being preferably entrapped within the liposomes or portioned between the liposomes and an external phase. This composition is for administration to the respiratory trait, preferably by inhalation. Dipalmitoyl phosphatidylcholine 60 and cholesterol 60 mg dissolved in 10 g $CHCl_3$ and 60 mg terbutaline sulfate dissolved in 1 mL H_2O were emulsified, evaporated on a rotary evaporator to form a gel, and 3 g H_2O added to the gel with mixing to form a liposome dispersion in which 38% of the terbutaline sulfate was encapsulated. Liposomes containing terbutaline sulfate were also tested for antiinflammatory and bronchospasmolytic effects (in rats and guinea pigs, resp.), with pos. results.

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2074	formoterol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:48
L2	2074	L1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:49
L3	13366	"citrate buffer"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:49
L4	43	L3 and L1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:50
L5	4668601	aqueous or water	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:50
L6	1607	L1 and L5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:50
L7	83788	steroid	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:50
L8	2977	fluticasone	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:51
L9	1104	L1 and L7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:51

EAST Search History

L10	1273	L1 and L8	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/03/08 09:51